# 2013

# Water Utilities Department Business Plan





**City of Sugar Land** 

# WATER UTILITY DEPARTMENT BUSINESS PLAN

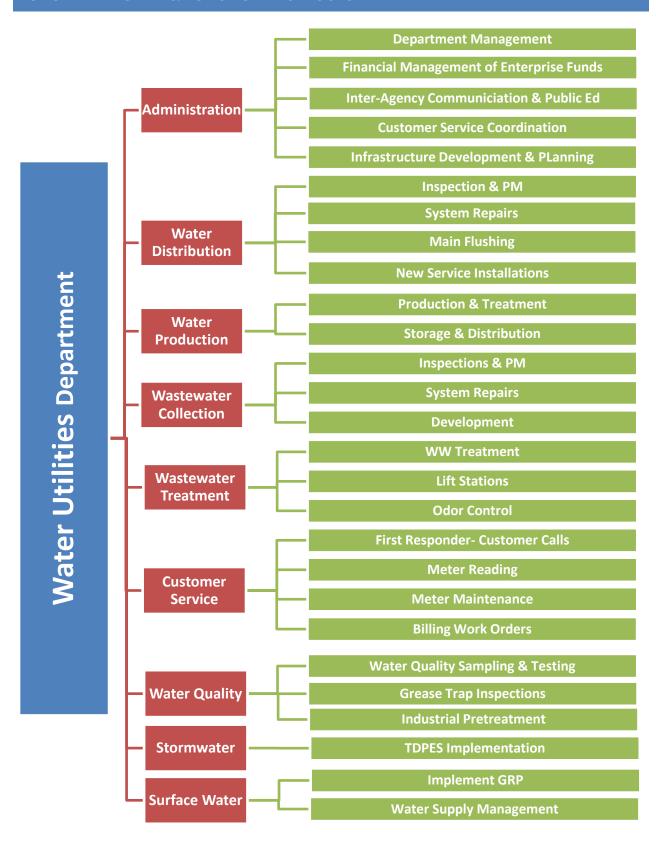
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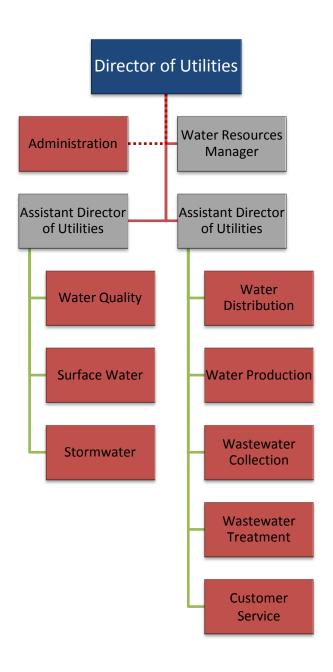
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# **ORGANIZATIONAL & FUNCTIONAL STRUCTURE**





# **2013 PROGRAM OF SERVICES**

# **UTILITY ADMINISTRATION-5001**

## **PROGRAM SUMMARY**

The Utility Administration sets departmental goals and strategies and provides organizational direction and control to accomplish those goals. Utility Administration provides budget coordination, oversight and management to all utility divisions. Oversees departmental activities and ensures contract compliance from outsourced services. Ensures all purchases are from budgeted items and are appropriate for the system.

The program operates to meet the City's mid-term priorities of Responsible City Government.

## SERVICES AND SERVICE LEVELS

# **Service: Department Management**

Management of the Department includes ensuring compliance with all city purchasing, accounting and personnel policies and procedures. Expected service level is 100% compliance with all policies.

<u>Operations Reporting:</u> Operations reporting involves supplying a quarterly report to the City Budget Office indicating overall performance measures for all Utility divisions. The performance measures are compiled from various sources including the HTE AS400, utility divisions, daily logs, and reports from contract operations.

Numerous regulatory reports are also created and submitted as required by the various regulatory agencies. (CIP, strategic projects, weekly management reports, monthly TCEQ reports, yearly EPA reports, monthly FBSD).

<u>Personnel Management</u>: Ensure that all personnel related items for employees are completed and adhered to for the department evaluations, interviewing and recommending for hire, recommendation for disciplinary action, training, promotion, demotion, and adherence to policies and procedures. All evaluations done timely and payroll status change forms are submitted to HR by deadlines.

## **Activity: Contract Administration**

Responsible for the management, inspection and cost control of two utility services contracts whose cost is over \$4.3 million including operations, maintenance of the wastewater treatment plants, distribution and collection systems along with all customer service and regulatory requirements. Also, contract development, management and cost control of approximately 40 service contracts per year that include: water treatment, landscape, engineering, and emergency utility repair. Goal is for all contracts to be in compliance with contract terms and within budgeted funding.

# **Service: Financial Management of Enterprise Funds**

<u>Budget Development and Financial Management of the Department:</u> Develop and coordinate the projection of funds for the next fiscal year for all divisions under Utilities, Surface Water and the Stormwater program. Complete, as a team, the five-year fiscal planning of the two enterprise funds and review the implementation of the rate model. Manage the budgets of the various divisions within appropriated funds and work with the Budget Office when budget amendments need to be considered.

The Department is also responsible for the management of the self-contained Surface Water and Utility Enterprise Funds with support from the Budget and Research Department. This includes all aspects of development of a five-year forecast of funding requirements, CIP management, managing upcoming impacts of regulatory changes along with balancing aging infrastructure repairs needs and new development costs. The Department is also responsible for the development, management and enforcement of Section 5 of the Code of Ordinances. This includes all sections involving water and wastewater services, how they are provided and the legal authority of the City. The billing and collection portion of the ordinance are managed by the Treasury Department with field support from Utilities.

<u>Inventory Control/Purchasing:</u> Purchasing, monitoring, and overseeing the management of warehouse inventory: repair parts, equipment, tools, and supplies in excess of \$100,000. Perform quarterly self-audits and a final end of year inventory to maintain a <4% annual loss. The Department completes over 270 purchase orders a year and 58 non-CIP contracts per year. Provide review and oversight to purchasing and inventory control for all divisions.

## **Service: Inter-Agency Communication & Public Education**

<u>Public Relations/Communications:</u> Develops, plans, and coordinates public relation events and press releases as they relate to water conservation, drought contingency implementation, pollution prevention, and public information meetings. Pursue water education programs and effort. Maintain adequate levels of communication to personnel, city administration, elected officials, and citizenry through reports, agendas, memos, and formal reports. Interacts with the public and responds to resident and customer concerns/inquiries primarily via phone. Proactively complete speaker's bureau and presentations at industry conferences and events.

<u>Consumer Confidence Report:</u> appropriately complete and file EPA report and communicate to our customers through the City's *Sugar Land Today* once per year as required by TCEQ.

<u>Intergovernmental Relations:</u> Coordinate and manage all aspects of our surface water conversion process and general utility planning efforts with external and internal entities, foster open communication between the City and regional water groups and entities, and provide legislative analysis of state and federal changes in law impacting the Water Utilities Department. Provide support for, and foster communications between, the Water Utilities Department, outside organizations, and other City Departments on shared water conservation opportunities and projects. The Division also serves as the liaison with local and regional organizations and attends local and regional water meetings and foster

communications with groups including but not limited to, the FBSD, LID 17, the NFBWA, Region H WPG, Oyster Creek TMDL stakeholders, etc.

Represent the Water Utilities Department in the City's legislative efforts; provide analysis for the Intergovernmental staff, and briefings for Utilities staff and City Management as necessary.

<u>Outside Agency Liaison:</u> Coordinate audits, inspections, and requests for information, with outside regulatory agencies such as TCEQ, EPA, TDH, Region H Water Planning Group, Fort Bend County Subsidence District, GCWA, MUDs, NFBWA, and other local and state water providers. Track, review and comment on all compliance requirements resulting for new legislation, regulatory rule making and make necessary operations adjustments to stay in compliance.

<u>Environmental Regulations:</u> Maintain compliance with all environmental regulations and mandates. Monitor anticipated changes to water, wastewater and storm water regulations and determine appropriate implementation of all TCEQ and EPA mandates. Environmental regulations include the Water Conservation Plan, Drought Contingency Plan, vulnerability assessments, Sanitary Sewer Overflow Program, Emergency response plans along with monthly compliance monitoring and reports.

### **Service: Customer Service Coordination**

<u>Customer Call Center</u>: The call center is managed and calls are answered 24/7. The call center is responsible for fielding all calls for the Public Works and Water Utilities Departments and tracking them through entry in the HEAT system. The HEAT system is used to track calls from customers. When a call results in a work request the information is then also entered into the HTE work order system and the work order number is then noted on the HEAT call system for tracking purposes. All calls are answered by a live person 24/7, no automated answering. After-hour calls are handled by an answering service, Monday thru Thursday, 5 PM-7 AM, Fridays, until 8 AM and 24 hours on Saturday and Sunday and calls are delegated to on-call staff as appropriate. Calls for service can also be generated through the City's website.

<u>Work Orders</u>: Work orders are generated from various sources into the HTE work order system, which includes customer requests from residential/commercial customers, developers, and builders. The call center secretaries are responsible for processing work requests that are generated, assigning to divisions for completion, and successfully closing work orders including the entry of personnel, equipment and inventory. The division processes approximately 10,000 work orders per year in HTE. Work orders are entered into HTE no later than 48 hours after receipt. Work orders are also created by the field supervisors for follow up work requests.

# **Service: Infrastructure Development & Planning**

Implement master plans and Capital Projects to meet projected development and asset management needs.

Long Range Planning and Utility Master Plan Development: Develop and manage infrastructure necessary to insure adequate supply and treatment is available for new development. Manage conversion to surface water through planning and implementation for City and ETJ that meets the projected needs for the next 50 years. Anticipate and plan for supply and quality issues in the future. Coordinate utility planning efforts with City plans for development and other Departments. Pursue alternative water supply strategies such as water conservation, water reuse, residential gray water systems, etc. Coordinate and communicate with local and regional water entities.

Update the Water and the Wastewater Master Plans at least every five years to ensure that infrastructure is completed timely to meet the needs of development. Ensure a regional approach to utility long range plans and infrastructure. Develop and manage utility agreements with developers and Municipal Utility Districts (MUD). Also, track and manage connection fee costs and collection from commercial development and MUDs. The Water Master Plan should be updated in 2012/2013 and the Wastewater Master Plan in 2012.

GIS/Hydraulic Modeling: The Water Utilities group supports the IT Department's management of the GIS Data base. The Utility GIS links physical (size, depth, material, capacities, etc.), financial (construction and cost) and maintenance data to components of the utility system infrastructure. The Department uses the tool in its day-to-day operations and long range planning efforts. The Water Utilities Department is responsible for the hydraulic modeling of the utility system through support of the Engineering Department.

<u>Capital Projects:</u> Develop and monitor a five-year utility capital improvement program for expansion and rehabilitation projects to assure the City's water system meets all current and future demands. Services include planning, bidding, receiving authorization, some construction phases, and warranty maintenance periods, as well as project cost tracking and budget management. The Department is directly responsible for the project management of twelve projects in FY 2012 that are not managed by the Engineering Department. This includes management oversight of approximately 41 projects a year with total 5-year budget of over \$181,000,000.

<u>Development Review:</u> The division reviews and comments on all new development to ensure plans are compliant with City Design Standards and operational guidelines. This includes six to ten design and construction plans per month. The Division also recommends changes to the development code and design standards as they impact water utilities.

Emergency Interruptible Load Service Program/Enernoc: The Department participates in the Emergency Interruptible Load Service Program (EILS) that was approved by the Public Utility Commission in late 2007. The payments to the City over the next five years could be approximately \$300,000 for participation in the program. The City must be able to reduce or eliminate its energy usage on very short notice (within ten minutes) at selected sites when a curtailment is issued by ERCOT by switching our power source to our on-site generators and right angle drive units. The program applies to both water and wastewater plants. ERCOT has infrequently called for a curtailment except during extreme heat waves and natural disasters.

<u>Special Projects:</u> The Division works on various reports, studies and analysis that benefit the Department or overall organization.

Program: Administration	
Service (Activity)	Service Level Expectation
Department Management	100% Compliance with purchasing, accounting and personnel policies & procedures
Contract Administration	100% Compliance with contract terms and budgeted funding
Financial Management of Enterprise Funds	Manage Enterprise Funds within annual budget and Inventory with <4% shortage
Inter-Agency Communication & Public Education	Maintain communication with other agencies and the public as appropriate. Attend interagency meetings 90% of the time.
<b>Customer Service Coordination</b>	Calls are answered 24/7 in person, work orders entered within 48 hours
Infrastructure Development & Planning	Implementation of Master Plans and CIP to meet projected development and asset management needs

# **WATER DISTRIBUTION - 5005**

## **PROGRAM SUMMARY**

Operate, maintain and repair 421 miles of distribution water mains, 3,817 fire hydrants, 27,282 service connection lines, and 5,225 mainline valves. The division is responsible for insuring that water produced is delivered as our customers expect with sufficient pressure to meet their needs and to meet the fire flow requirements in an emergency. (Some repairs within this division are completed by SWWC though a contract. Specific repair quantities are detailed in the appendix.)

The program operates to meet the City's mid-term priorities of Responsible City Government through provision of safe drinking water that exceeds minimum standards.

#### SERVICES AND SERVICE LEVELS

# **Service: Inspections & Preventative Maintenance**

# **Activity: Valve Inspection & Maintenance**

<u>Valve Inspection & Maintenance:</u> The City has approximately 5,225 mainline valves throughout the distribution system. The purpose of the valve inspection program is to insure valves operate properly to reduce the area of service disruption during system repairs and improve the water quality. Valve boxes tend to get buried or broken by customers. The valve inspection program involves locating the valve, operating the valve, and painting the curb with blue paint to mark location of each valve once per year. If the valve can't be located or the valve stack is full of dirt, it will be noted on the valve log and a work order is generated to correct the problem.

## **Activity: Hydrant Inspection & Maintenance**

<u>Fire Hydrant Inspection & Maintenance:</u> Fire hydrant inspection is performed bi-annually on 3,817 fire hydrants within the City. Inspection includes: trimming foliage from the hydrant and isolation valve, checking operation of the isolation valve, lubricating upper stem operating nut, removal of caps to flush and remove rust from barrel and check volume of water, grease and replace caps, verifying the hydrant number, and checking for leaks. The hydrant maintenance log is updated to reflect the date and type of maintenance completed. Once complete, crews often check to verify operation. Every two years, each hydrant is repainted and color-coded to the water main size that feeds each hydrant.

<u>Flow Testing:</u> Meets with contractors to perform hydrant flow testing for fire protection capacity. This is done to determine if the supply is adequate for fire protection for insurance rating purposes. (A copy of the results is kept at Water Utilities.)

# **Service: System Repairs**

## **Activity: Main Repairs**

The City has 421 miles of water mains that range in size from 4–30 inches in diameter. Shifting ground, especially during extended drought periods, puts tension on underground water lines and causes them to break or separate. Depending on weather conditions, this division repairs approximately 120-350 mainline breaks per year. Since main breaks release large volumes of water, and can damage personal property or create hazardous conditions if not attended to quickly, they are deemed an emergency repair. Main repairs are responded to within one hour and repairs are completed on the same day.

A typical water main repair includes: requesting emergency locates for other underground utilities, setting up traffic control devices, taking down fencing for rear easement water lines, removal of concrete for most front easements, excavating according to depth and soil condition with the proper sloping or shoring providing a safe work area, effecting the repair, backfilling according to City design standards, and washing down the area with the hydra-unit. If concrete removal is required, the area is secured with safety fencing or barricades. The property owner is then notified of the tentative final dress up date. A job ticket is completed listing work completed as well as parts required to complete the repair. Some larger breaks require turning off the main and splicing in a new section of pipe. When the water main is de-pressurized to make a repair, every service within the affected area must be turned off and the line must be super chlorinated for disinfection. Super-chlorinated water that is flushed must also be de-chlorinated to protect the aquatic life in area waterways. Once the main has been flushed and placed back in service, all services are turned back on and a bacteriological sample is collected. When possible, citizens whose water is affected will be notified prior to the repair.

## **Activity: Service Lines**

The City has approximately 27,282 water service connections that need continual maintenance and repair. This division investigates approximately 2,250 leaks and completes approximately 875 excavated service repairs per year. If after an initial investigation, it is determined that the leak is the City's responsibility, a repair order is issued for a scheduled repair. Smaller leaks are usually associated with service lines leaks. Service lines are used to convey water from the water main to the meter. Over time service lines can develop leaks, become damaged, or crimped limiting the water supply. Some can be repaired with hand digging; however, the majority requires the use of a backhoe to repair. A routine excavated repair consists of: calling for other utility locates, setting up traffic control devices, taking down fencing for rear easement water lines, removal of concrete for most front easements, excavating according to depth and soil condition with the proper sloping or shoring providing a safe work area, effecting the repair, backfilling according to City Design Standards, and washing down the area with the hydra-unit. If concrete removal is required, the area is secured with safety fencing or barricades. The property owner is then notified of the tentative final dress up date. A job ticket is completed listing work completed as well as parts required to complete the repair. Service Repairs are partially outsourced- up to 300 repairs per year are performed by SWWC Inc. Repairs are done within 10 days for standard leaks, and within 2 hours for an emergency repair.

# **Activity: Valve & Hydrant Repairs**

<u>Valve repairs:</u> Repairs to valves are generated mostly from the inspection program and require: requesting locates for other underground utilities, setting up traffic control devices, excavating according to depth and soil condition with the proper sloping or shoring to provide a safe work area, cutting/removing old valve, installing new valve, and backfilling according to City Design Standards. The line is properly disinfected and once the line has been flushed and placed back in service, all individual services are turned back on and a bacteriological sample is collected. If concrete removal is required, the area is secured with safety fencing or barricades. The property owner is then notified of the tentative final dress up date. The work order is completed listing work completed as well as parts required to complete the repair. The Division's goal is to complete 95% of identified repairs annually.

<u>Hydrant Repairs:</u> Operation, maintenance and repair of approximately 3,817 fire hydrants. A fire hydrant repair can consist of both repairs with or without excavation. A routine hydrant repair requires: requesting locates for other underground utilities, setting up traffic control devices, excavating according to depth and soil condition with the proper sloping or shoring to provide a safe work area, remove/replace or repair existing hydrant and appurtenances, and backfill according to City design standards. If a hydrant is left out of service for more than an eight-hour period, an out of service donut ring is placed on the hydrant signifying that it is out of service and PD dispatch is notified. After the repair is made, the site is restored back to its original state. Due to the safety issues, fire hydrant repairs are to be made within 14 days.

# **Activity: Site Restoration**

When concrete and landscaping are removed to access service lines and mains, repairs are made and concrete and landscaping replaced to pre-repair state within 14 days.

<u>Concrete Restoration:</u> Approximately 40 percent of water repairs require removal of existing sidewalks, driveways, or streets. After repairs have been made, the replacement of concrete is transferred to the Public Works Department.

<u>Landscape Restoration:</u> Landscape (including sod) removal is part of almost every excavated repair. Restoration includes replanting any trees, shrubbery, foliage, sprinkler repair, and full sod replacement. Every practical precaution is taken to minimize the removal of sprinkler system components and landscape.

## **Service: Main Flushing**

<u>Flushing:</u> TCEQ requires flushing dead end water mains monthly to preserve the quality of the water delivered to the customer. There are approximately 396 dead end mains within the 419 miles of distribution system and each requires flushing approximately 5 –15 minutes per month. Annually, the division flushes predetermined main line fire hydrants to help remove any sediment or accumulated deposits within the distribution system. Water is flushed from the hydrant or blow off until the water

runs clear. The amount of water flushed is documented to account for water loss and water accountability. System lines are flushed twice per year and dead end mains are flushed monthly.

## **Service: New Service Installations**

New Service Installations: The City installs approximately 500 new water service connections per year that range in size from ¾" to 2". Anything above 2" requires a vault and is contracted by the builder and inspected by staff. New services require making a tap at the main and running a service line to the water meter. A routine installation requires the following: requesting locates for other underground utilities, setting up traffic control devices, excavating according to depth and soil condition with the proper sloping or shoring to provide a safe work area, tapping the water main, connecting the new service, installing a water meter, and backfilling according to City Design Standards. Near side installations are on the same side of the street as the water main, while far side installations are on the opposite side of the street and require pulling a new service under the street. After the repair is made, the site is restored to its original state. New service installations are completed within 10 days of customer request.

Program: Water Distribution	
Service (Activity)	Service Level Expectation
Inspections & Preventative Maintenance	See Activity Service Level Expectations Below
Valve Inspection & PM	100% of valves inspected annually
Hydrant Inspection & PM	Twice yearly inspection of all hydrants, with 50% painted annually and 100% of Preventative Maintenance
System Repairs	See Activity Service Level Expectations Below
Main Repairs	100% responded to within one hour; repairs completed same day
Service Lines	100% of repairs within 10 business days for a standard leak; within 1 day for emergency repairs.
Fire hydrants & Valves	95% of noted valve repairs completed annually, Hydrants repaired within 14 days
Site Restoration	100% of Concrete and landscape restored to original state within 14 days of repair completion.
Main Flushing	100% of system lines flushed twice per year, dead end mains flushed monthly
New Service Installations	100% of Installations complete within 10 days of customer request

# **WATER PRODUCTION - 5006**

## **PROGRAM SUMMARY**

Water Production is responsible for producing and supplying quality water that complies with all Federal and State water quality standards and meeting system demands at all times. This includes operating, maintaining, and repairing 7 water plants, 17 water wells, 15 ground storage tanks, 4 elevated storage tanks and 30 high service booster pumps. With the annexation of Fort Bend MUD #1, the City has two separate water systems: the River Park System and City System.

The program operates to meet the City's mid-term priorities of Responsible City Government through provision of safe drinking water that exceeds minimum standards.

#### SERVICES AND SERVICE LEVELS

#### **Service: Water Production & Treatment**

Ensure production capacity is sufficient to meet customer demands and maintain water treatment chemicals at optimal levels.

<u>Water Production:</u> This division is responsible for the production of approximately 6.5 to 7.5 billion gallons of water per year from 17 groundwater wells through two separate water systems and for producing and supplying quality water that complies with all Federal and State water quality standards and meets system demands at all times including fire protection. The division is also responsible for operation, maintenance and repair of water production facilities. Scheduled operations and maintenance includes: daily operations check seven days a week and twice a day during peak times, reporting, ensuring proper line shaft lubrication, motor bearing lubrication, semi-annual well production efficiency testing, flow meter calibration and repair, and preventive maintenance to auxiliary drive units and motor control centers. Monitor usage during peak times and trigger drought plans if necessary.

<u>Water Treatment:</u> The division treats approximately 7 billion gallons of water per year at seven water treatment facilities. Water is treated with chlorine in a gaseous state for disinfection, hydrofluosilic acid (fluoride) for the prevention of tooth decay, and zinc ortho-phosphate or poly-phosphate for corrosion protection of private home plumbing. Scheduled maintenance includes: daily operations check and reporting, testing daily for each chemical additive at each water treatment facility, checking and adjusting feed rates, maintenance and repair of all chemical pumping equipment and appurtenances, chemical order and delivery. The Division must also complete and submit required TCEQ self-monitoring reports monthly. All repairs of the disinfection system, electrical system and chemical feed systems are completed or managed by staff.

<u>Supervisory Control and Data Acquisition (SCADA):</u> The City's water utility SCADA system consists of 31 Remote Terminal Units (RTU) that communicate with each other and the host via radio. Each of the five

water treatment facilities RTU's communicates with its peripheral devices (wells, ground storage tanks, booster pumps, and elevated storage tanks). Utility operators are responsible for operating and maintaining the SCADA system – equipment repair, programming, and coordinating contracted repairs and additions. Repairs are outsourced.

<u>Emergency Operations:</u> Auxiliary generators/drive units are located at all the water plants and at several of the offsite well locations. This serves as a backup service to run the wells in case of loss of electrical power to the sites. Operations and maintenance includes weekly exercising and inspection, and monthly operation under a full load simulating an electrical failure following required NFPA standards.

<u>Security:</u> The EPA mandated vulnerability assessment the Department completed in 2005 determined the appropriate levels of security necessary on the water system. The Division is responsible for operations, maintenance, and repair (internal and external) for security systems installed at 14 water production/storage/treatment facilities. The systems consist of access control along with additional levels of security at sensitive pieces of equipment. Repairs are outsourced.

# **Service: Water Storage & Distribution**

The overall goal of this service is to maintain water pressure above 35 PSI at all times; which is the TCEQ minimum before the City has to issue a boil-water notice. The City's goal is 45 PSI minimum.

<u>Water Storage</u>: The water system has 15 ground water storage tanks with a capacity of 12.0 million gallons and 4 elevated water storage tanks with a capacity of 4.3 million gallons. The purpose of water storage is to provide a reserve supply of water during peak demands. It also provides a reserve of water during outages, emergencies, firefighting, and detention time for disinfection. The Division's scheduled maintenance includes: daily operations checks and reporting, maintenance/repair and calibration of electronic level sensors, piping, valves, annual inspection, and cleaning.

<u>Water Distribution:</u> The City's water distribution system has 30 high service pumps (booster pumps) at the seven water treatment facilities that distribute 7.0 billion gallons of water per year into the 421 miles of distribution system and 27,282 service connections that distribute water to approximately 84,500 customers. The purpose of the water distribution pumping system is to provide a continuous delivery of treated/finished water at adequate pressure to all residential, commercial and industrial water customers. The division is responsible for scheduled operations and maintenance which includes: daily operations checks and reporting, packing pumps, motor bearing lubrication, semi-annual wire to water efficiency testing, flow meter calibration and repair, preventive maintenance to auxiliary drive units, generators, motor control centers, and facility maintenance. Major equipment repairs are outsourced.

Program: Water Production	
Service (Activity)	Service Level Expectation
Water Production & Treatment	Ensure production capacity sufficient to meet customer demands; treatment chemicals added at optimal levels
Water Production	Water accountability maintained above 90%.
Water Storage & Distribution	Maintain minimum water pressure above 35 PSI under all conditions

# **WASTEWATER COLLECTION - 5011**

## **PROGRAM SUMMARY**

Operate, maintain and repair 395 miles of sanitary sewer collection lines, and 10,120 manholes in a sanitary manner that meets or exceeds all State and Federal guidelines and ensure that there is adequate capacity for growth. The Division also implements the TCEQ Sanitary Sewer overflow elimination program. (Some repairs within this division are completed by SWWC though a contract. Specific repair quantities are detailed in the appendix.)

The program operates to meet the City's mid-term priorities of Responsible City Government.

## SERVICES AND SERVICE LEVELS

# **Service: Inspections & Preventative Maintenance**

# **Activity: Manhole Inspection & PM**

Preventive Maintenance manhole inspection and repair is completed to reduce the time requirements for stoppage investigation and repair and to reduce the potential for property damage. It involves inspection of the manhole for debris, obstructions, infiltration, and deteriorations. Manhole walls, rings and covers are also inspected. Any deficiencies are recorded on the maintenance log so that a work order can be generated for repairs. Repairs include adjusting height of manholes, sealing rain water inflow points within the throat of the manhole, and cleaning obstructions in the bottom. This division inspects approximately 4,500 of the manholes every year either through contract services or internal staff. Each manhole is inspected once per year and repairs completed as needed.

# **Activity: Line Cleaning**

Preventive Maintenance hydra-jet line cleaning is scheduled for problem sewer lines to reduce the potential for future sewer stoppages that may result in property damage, and to help identify system infiltration points. It involves both front and rear easement access depending on the location of the city sewer line, notifying the property owner of the planned activity, inspection of the upstream manhole for debris and signs of any irregularities. Upon completion, a record of the total footage cleaned, line condition, and date are all listed on the maintenance log. This Division cleans in excess of 25 miles of sewer line per year.

# **Activity: Line Televising**

Line televising is completed to verify the condition of the sewer lines or for conflict resolution with citizens in determining responsibility of failed sewer lines. This involves running a remote camera into the sewer line so that the actual condition of the line can be viewed without having to excavate. This Division will televise approximately 15 miles of sewer line per year.

**Service: System Repairs** 

# **Activity: Stoppages & Overflows**

<u>Sanitary Sewer Overflows</u>: When unauthorized discharges (overflows) of sanitary sewer occur beyond the confines of the collection system, samples are taken as needed and delivered to the lab to analyze for fecal content and Ph. After an on-site inspection has taken place, the area is cleaned up, calcium hypo chloride is applied to the affected area for disinfection and a report relating to the unauthorized discharge is completed and forwarded to the TCEQ. In 2009 the Department received an approved Sanitary Sewer Overflow Initiatives Program from the TCEQ which requires significant capital expenditure and preventive maintenance to insure improvement in the number of unauthorized discharges each year. Respond to overflows within one hour.

Stoppages-Investigate & Repair: This division responds to approximately 306 sewer stoppages per year. A typical stoppage repair includes: removing the cover of the first manhole or clean out downstream of the blockage to provide access and pressure relief during main servicing. The main is then jetted using the hydra-unit until the blockage is relieved or if necessary, it may require an excavated repair. The upstream inspection point is checked to assure the blockage has been relieved. Once completed, the party reporting the stoppage is notified of service completion and is asked to check their private plumbing. A work request is then completed noting the location of the blockage and pertinent job details. If there is evidence of an overflow of wastewater at any location, a compliance report is generated and submitted to the TCEQ. Blockages are to be cleared on the same day.

# **Activity: Collection Line/Lateral Repairs**

If through investigation of a stoppage, sink hole, or televising the sanitary collection lines it is determined that there is a flow restriction due to collapsed pipe, root infestation, or some other anomaly, a routine sewer line repair is initiated. This division performs approximately 130 sewer line repairs per year. Crews will first identify the location and affected area and notify property owners of the required excavation. A routine excavated repair consists of: calling for other utility locates, setting up traffic control devices, taking down fencing for rear easement sewer lines, removal of concrete for most front easements, removing sprinkler lines, excavating according to depth and soil condition with the proper sloping or shoring providing a safe work area, effecting the repair, backfilling according to City Design Standards, removing excess debris, and washing down with the hydra-unit. If concrete removal was required, the area is secured with safety fencing or barricades. The property owner is then notified of the tentative final dress up date. A work order is completed listing work completed as well as parts required to complete the repair. The service level expectation is completion of repairs within 10 days; 2 hours for emergency repairs.

# **Activity: Site Restoration**

When concrete and landscaping are removed to access collection lines, repairs are made and concrete and landscaping are replaced to pre-repair state within 14 days.

<u>Landscaping:</u> Landscape (including sod) removal is part of most excavation repairs. Restoration includes replanting of trees, shrubbery, foliage, sprinkler repair, and full sod replacement damaged or removed during the repair. Every practical precaution is taken to minimize the impact to sprinkler and landscape components.

<u>Concrete Restoration</u>: Approximately 10 percent of collection line repairs require removal of existing sidewalks, driveways, or streets. After repairs have been made, the replacement of concrete is transferred to the Public Works Department.

# **Service: Development**

<u>New Service Installations:</u> New sanitary services are installed primarily for Parks, Airport and the CIP customers as special projects. The sewer main is excavated and a gravity or force main is installed into the City main. This sometimes requires installation of small lift stations. The Water Utilities Department does not charge the requesting Department for the cost. Customer's sewer connections are installed by the builder's plumber and the tap is inspected by the division. New installations are completed within 10 days of customer request.

<u>Line Locates</u>: Line locates involve physically verifying utility (water/wastewater) conveyance lines at the request of an outside entity or our CIP construction division. Before construction begins in the City's ROW, contractors are required to call the division to locate water and wastewater lines to prevent damaging the utility infrastructure. Utility maps, either in hard copy or electronic GIS maps, are checked for general line locations and if necessary, probing and exposing water lines is completed. The area is then marked indicating type and depth of utility.

<u>Special Projects/CIP Support:</u> Once or twice a month, the Division assists other divisions with water/sewer installations and repairs for which they had not planned or budgeted. This normally requires a full crew and the use of heavy equipment. These usually involve pump/motor maintenance and repairs at park facilities, storm water detention ponds, City-owned irrigation controllers, temporary water or wastewater service installations or heavy equipment repairs at the Airport or Park facilities.

Program: Wastewater Collection	
Service (Activity)	Service Level Expectation
Inspections & Preventative Maintenance	See Activity Service Level Expectations Below
Manhole Inspection & PM	Inspect each manhole annually, with repairs as needed
Line Cleaning	Clean at least 25 miles of sewer line annually
Line Televising	Televise at least 15 miles of sewer line annually
System Repairs	See Activity Service Level Expectations Below
Stoppages & Overflows	100% responded to within one hour; blockages cleared same day
Collection Line/Lateral Repairs	100% of repairs within 10 business days standard; within 2 hours for emergency repairs
Site Restoration	100% of Concrete and landscape restored to original state within 14 days of repair completion.
Development	100% of Installations complete within 10 days of customer request

# **WASTEWATER TREATMENT - 5012**

## **PROGRAM SUMMARY**

Transport and treat wastewater to a quality that meets or exceeds Federal and State water quality standards including meeting all TPDES permit discharge requirements for each wastewater plant. Responsible for operation, maintenance, and repair of 101 sanitary sewer lift stations, and two wastewater treatment plants through a combination of City staff and contract operations firms.

The program operates to meet the City's mid-term priorities of Responsible City Government.

## SERVICES AND SERVICE LEVELS

## **Service: Wastewater Treatment**

Treated wastewater will meet or exceed all EPA and TCEQ discharge permit requirements.

<u>Wastewater Treatment:</u> The City treats approximately 3.1 billion gallons of wastewater from residential, commercial and industrial customers at two wastewater treatment facilities through contract operations. River Park wastewater is treated by Fort Bend MUD 112 via a contract acquired through the annexation of Fort Bend MUD 1. This Division oversees the annual expenditures, approves repairs, ensures contract compliance for the treatment plants, and writes and completes TCEQ TPDES discharge permit renewal(s).

<u>Emergency Operations:</u> The two wastewater treatment plants have emergency operation contingency plans. This serves as a backup service plan to run the facilities in case of loss of electrical power or catastrophic failure. The plans are reviewed and revised annually along with the TCEQ/EPA approved Risk Management Plan and Emergency Response Plan.

## **Service: Wastewater - Lift Stations**

Lift stations will be operational 24 hours per day, 7 days per week with no service interruptions.

<u>Wastewater Collection:</u> The City has 101 sanitary sewer lift stations that pump approximately 3.1 billion gallons of wastewater to the two wastewater treatment facilities. This division is responsible for ensuring that facilities and operations comply with all federal and state wastewater quality standards and meet system demands at all times. The division is responsible for operation, maintenance and repairs both internal and contracted. Scheduled operations and maintenance includes: check each lift station daily (seven days a week), operations checks and reporting, ensuring prompt delivery of wastewater to treatment plant, pump efficiency testing, flow meter calibration and repair, preventive maintenance to motor control centers (electrical), overseeing facility rehabilitation projects, and diagnosing and completing repairs to pumps, motors and other equipment as needed.

<u>Emergency Operations:</u> Each of the 101 lift stations has an emergency operations contingency plan. These serve as a backup service plan to run the facilities in case of loss of electrical power or catastrophic failure to pumping equipment. These plans are reviewed annually and revised as necessary.

<u>Supervisory Control and Data Acquisition (SCADA):</u> The City's wastewater utility SCADA system consists of 31 Remote Terminal Units (RTUs) that communicate with the host via radio. RTUs monitor and control the major pumping facilities throughout the City. Utility operators are responsible for operating and maintaining the SCADA system: equipment repair, programming, coordinating contracted repairs and additions and responding to alarms within one hour. Alarm calls can require onsite diagnosis of the cause and correction of the problem. Significant repairs and programming are outsourced.

## **Service: Odor Control**

<u>Odor Control</u>: Prompt delivery of wastewater to the treatment plant from the collection system is necessary to limit malodors at the treatment plant and major collector lift stations. The more aged wastewater becomes, the more likely it will produce noxious gases and create a quality of life issue for nearby citizens. Where odor is a continual nuisance, odor control equipment is required to mitigate the problem. This division is responsible for the operation, maintenance and repair of all odor control equipment. Scheduled operations and maintenance includes: daily operations checks and reporting, and overseeing facility rehabilitation projects. Replacement of periodic odor control media and repair of equipment is performed as necessary. The objective is to not receive any complaints of odor with odor control equipment operational 100% of the time.

Program: Wastewater Treatment	
Service (Activity)	Service Level Expectation
Wastewater Treatment	WW Treatment meets or exceeds all EPA and TCEQ discharge permit requirements
Wastewater - Lift Stations	Lift Stations operational 24/7 with no service interruptions
Odor Control	No odor complaints, odor control equipment operational 100%

# **CUSTOMER SERVICE - 5015**

## **PROGRAM SUMMARY**

The Customer Service program is responsible for reading customer meters monthly, responding to calls for service from customers, maintaining large meters, changing out meters on a replacement cycle, responding to customer work orders generated by the Treasury division. The Division responds to all requests for service 24 hours a day 7 days a week. The Division also completes customer education programs such as water conservation. (Some repairs within this division are completed by SWWC though a contract. Specific repair quantities are detail in the appendix.)

The program operates to meet the City's mid-term priorities of Responsible City Government.

#### SERVICES AND SERVICE LEVELS

# **Service: First Response- Customer Calls For Service**

First response calls are responded to within 24 hours unless it is determined upon initial contact to be an emergency. An emergency call is responded to within one hour and includes calls for main line water leaks, discolored water, low water pressure, no water, a sewer stoppage, or a request for emergency cut off due to a severe private leak. Emergency calls and other calls for service are initially investigated to determine responsibility. If the problem is a City's responsibility, the technician will either take the appropriate steps to resolve the problem immediately or schedule it for City backhoe crews to repair. If the problem is determined to be the customer's private issue, the technician will notify the homeowner either verbally or by a door tag if no one is home.

# **Service: Meter Reading**

The contract operator performs monthly readings of the City's metered water accounts for billing purposes. Meter reading routes for each cycle are assigned a standard time to complete. Meter readings are recorded with handheld devices which can be loaded into the City's billing system. All 27,282 metered accounts are read each month with a goal of 98% accuracy.

## **Service: Meter Maintenance**

## **Activity: Meter Maintenance & testing**

Meter maintenance includes meter box replacement, curb stop replacement, meter locates, and new meter box installations. Service repairs in this division are completed in situations where a minor leak has been discovered or around the City's water meter. Minor leaks do not involve excavation and can be repaired by one person in a minimal amount of time. Usually personnel will have to physically locate leaks on the private side of the water service to satisfy the customer that it is not the City's responsibility. Problems with water service are typically initiated by some type of contact from the

customer. These calls include complaints regarding water pressure or discolored water, checking the private isolation valve, checking for a malfunctioning private water treatment device, addressing water pressure, and discolored water problems. If no problem is detected, a meter flow test is initiated to determine gallon per minute flow rate. Generally requests of this type require significant time for resolution due to investigating private plumbing issues.

<u>Large Meter Testing:</u> Meter testing is performed to all large meters (greater than 2 inch) operating within the City. It is necessary to determine the accuracy of these meters to prevent unnecessary loss of revenue. This division tests and supervises testing of approximately 100 large meters per year and repair or replaces those not meeting TCEQ standards.

# **Activity: Meter Change-out Program**

Meter Change Out Program: The meter change out program requires that meters within a meter reading cycle and geographic area be changed out as a group after they have reached their estimated lifespan of 12 years. Each meter change out involves temporarily disconnecting service so that the meter can be replaced. If necessary, meter boxes and lids are replaced and curb stops are exposed for easy turn off. Once replaced, the lines are flushed and any debris in the meter box is removed. This division changes out approximately 2,250 meters per year to ensure accurate billing and keep billed versus produced water accountability within 10 percent.

# **Service: Billing Work Orders**

The City's Treasury Department generates approximately 16,000 billing work orders yearly. These work orders are obtained from the Treasury Department twice daily and are under most circumstances completed the same day they are generated. They involve turning on the water for a new account and turning off service for a closed account. Billing work orders can involve monitoring water meters for private leaks. They include customer notification of delinquent bills through hanging door tags at each delinquent account, and ultimately, the disconnection of the meter on delinquent accounts and reconnection after payment has been made. The goal is to complete 90% of these work orders within one day of generation of the request.

## **Service: Water Conservation**

Develop, renew, and submit Water Conservation and Drought Contingency Plan to the TCEQ and TWDB for approval, and submit yearly compliance reports. Oversee the implementation of the Plan. Participate in the Fort Bend Subsidence District's Water Wise Program. Develop and implement the water conservation program including: Promote water conservation in various public events, develop water conservation educational material for distribution, develop pilot water conservation program to promote public awareness and participation. This service will be an ongoing effort and the service level measures will be reductions in peak water demand and reducing water consumption per connection. The division is also responsible for all Water Utility Department public relations efforts.

Program: Customer Service	
Service (Activity)	Service Level Expectation
First Responder- Customer Calls	Respond to Calls for Service within 24 Hours Emergency calls Responded to within one hour
Meter Reading	All meters are read once monthly with 98% accuracy
Meter Maintenance	See Activity Service Level Expectations Below
Meter Maintenance & Testing	Large meters are tested and maintained to ensure accuracy according to testing schedule
Meter Change Out Program	All meters are replaced once per 12 years
Billing Work Orders	Complete 90% of Internal Work Orders within One Day of Generation
Water Conservation	Implementation of Water Conservation Plan by holding at least 30 Water Education presentations, events, and workshops.

# **WATER QUALITY - 5016**

## **PROGRAM SUMMARY**

This program is responsible for the reporting and implementation of most of the City's TCEQ requirements. Ensure safety and quality of drinking water and ensure proper feed rates of all chemical applications through a robust QA/QC program. The division handles numerous mandated programs.

The program operates to meet the City's mid-term priorities of Responsible City Government.

## **SERVICES AND SERVICE LEVELS**

## Service: Water Quality Sampling & Testing

Objective is to maintain 100% compliance with TCEQ/EPA monitoring required by the Safe Drinking Water Act (SDWA). This includes sampling and testing of raw and finished water at established monitoring locations.

Monitoring for SDWA Contaminants: Accompany the TCEQ contractor as they sample all stages of the drinking water process. These samples are analyzed by the TCEQ contracted lab and results are reviewed to assure that primary and secondary maximum contaminant levels are met. This includes metals, salts, herbicides and pesticides, radioactive chemicals, and disinfection byproducts. Special sampling is conducted periodically for emerging contaminants through the Unregulated Contaminant Monitoring Rule. Raw water is sampled as required to obtain baseline data for surface water treatment.

Corrosion Prevention Program: Conduct distribution sampling and analysis, at minimum, once per week for water treatment chemicals and chemical parameters that can affect corrosion. This includes orthophosphate which is added as a corrosion inhibitor. Manage the EPA mandated Lead and Copper program which requires testing and reporting of water chemistry in the distribution system and at customer's internal private fixtures every three years. Lead and copper have action levels that when exceeded indicate that the method used to inhibit corrosion is not adequate. Lead and copper monitoring is a major division effort which includes finding residences with appropriate plumbing fixtures and recruiting the residents to volunteer to sample first- draw from their internal faucets. This is a mandate for both water systems with a minimum of 30 sampling locations each.

QA/QC Sampling and Instrument Calibration: Provide verification that that instruments the Operations division uses to adjust water treatment chemical feed are accurate. Water Quality personnel check the calibration of the field test kits and the on-line analyzers monthly. The division also performs weekly field testing in the distribution system and monthly testing at the plants to assure that chemical levels are within established ranges.

<u>Customer Inquiries:</u> Support Customer Service in providing testing at residences for atypical water quality complaints. Answer customer inquiries about water quality and the annual Water Quality Report (CCR).

# **Activity: Backflow Prevention**

Annual monitoring, reporting, correspondence, enforcement, and conflict resolution for approximately 1,300 backflow devices that protect the distribution system from high health hazard backflow. Track backflow device testing and perform investigations and other enforcement activities to promote compliance. Backflow contamination from high health hazard facilities (industrial, heavy commercial) could pose health risks to the public and the infrastructure if not monitored properly. For high health hazard backflow devices, the goal is to maintain 100% reporting in compliance with regulations.

# **Activity: Bacteriological Distribution Sampling**

Collect a minimum of 84 coliform bacteria samples per month and daily chlorine residuals for two public water systems per TCEQ requirements. Bacteriological monitoring requirements are driven by population served for each system and therefore a different minimum number of monthly samples are applicable. Samples are collected Monday-Thursday for coliforms and a free chlorine test is run in the field at each site. The contract lab must receive and run the samples for total and fecal coliforms within a short hold time. Friday-Sunday and on holidays, sites on the Monitoring Plans are checked for chlorine residuals. All sites must have a minimum free chlorine level of 0.2 mg/L on any given day. Repeat total coliform positives or any fecal coliform positives can result in mandatory Public Notice to include a "boil water" notice to customers and fines by TCEQ.

Approximately 10 construction samples are collected each month for total coliform analysis. This analysis is necessary for putting water mains and repaired sections of existing mains on line. Goal is for 100% of samples to be in compliance with TCEQ standards with no positive samples.

# **Service: Grease Trap Inspections**

The purpose of this program is to provide assurance that grease traps are maintained so that grease, oil, grit, and lint discharged by facilities are removed prior to entry into the public wastewater system. Over time excessive fats, oils, grease, and particulate can create stoppages in the collection system leading to sanitary sewer overflows (SSOs), increased potential for odor problems in the collection system, or pass through at the treatment plants. Dischargers include food service establishments, industries, auto repair shops, commercial laundries, car washes, schools, and hotels. Annual inspections on 357 active traps are performed at a minimum frequency required by the City's SSO reduction agreement with TCEQ. Higher risk grease traps (based on history) are inspected more frequently. If an establishment does not maintain a grease trap the responsible party may be charged for additional follow up inspections, subject to increased inspection frequency, fined, or in extreme cases water service may be discontinued until the establishment returns to compliant status.

# **Service: Industrial Pretreatment Program**

Wastewater Quality Sampling/Pretreatment Program: The Industrial Pretreatment Program (IPP) was established by federal regulations requiring local governments like Sugar Land to regulate the wastewater discharge from industrial users by City Ordinance; the City effectively becomes the regulator for the permit holders. The IPP includes monitoring and enforcing federal pollutant discharge limits by industrial category and establishing, monitoring, and enforcing local discharge limits. The IPP is complex and demanding and the State mandates that the City have dedicated resources to accomplish the following tasks. Staff must create and enforce permits for significant industrial users (SIUs) identified based on the potential to exceed federal or local limits or have the potential to negatively impact any part of the system. The permits include pollutant limits for various discharge points, self-monitoring and reporting frequencies, requirements for certifications of continuing compliance, slug discharge control plans, and waivers granted in accordance with applicable regulations — all requiring day to day staff oversight, correspondence, and enforcement.

The City must routinely update local limits every 5 years which is done via a detailed 7 day 24 hour mathematical characterization of the wastewater pollutant loading of the treatment plants and in the collection system (due 2015). Each new business must be evaluated for inclusion in the program as SIUs on an ongoing basis and a comprehensive city-wide Industrial User Survey must be conducted every three years to further assure that all businesses are permitted appropriately (due 2013). Staff must also monitor discharge compliance semi-annually by collecting 24 hour samples at each SIU and by performing an annual site inspection. Wastewater influent and effluent is sampled at a defined frequency by pollutant and staff must review these results for compliance. Results of all activities and major changes must be reported to TCEQ for approval and for their evaluation of the need for a major program update.

In addition non-compliant SIUs are reported annually via public notice in local media. The Program currently includes 4 SIUs and 1 in the permitting process. Participants are monitored semi-annually for discharge compliance with permits.

<u>Commercial Facility Inspection:</u> Inspection of approximately 80 heavy commercial and industrial establishments annually for wet process verification, chemical storage, waste disposal, cross contamination, and make written recommendations. Enforcement and follow-up as needed. Coordinate file management of inspection records and respond to environmental site assessment request.

Program: Water Quality	
Service (Activity)	Service Level Expectation
Water Quality Sampling & Testing	100% compliance with source & treated water monitoring and testing
Backflow Prevention	100% reporting compliance with high health hazard backflow devices
Bacteriological Distribution Sampling	100% of Samples in compliance with TCEQ Standards, no positive samples
Grease Trap Inspections	100% of grease traps inspected at a minimum twice yearly some more often based on compliance history
Industrial Pretreatment Program	Discharge Compliance Monitored Semi Annually

# **STORM WATER MANAGEMENT - 1431**

## **PROGRAM SUMMARY**

The Storm Water Management Division is responsible for developing and implementing the City of Sugar Land's Storm Water Management Program as required by the Environmental Protection Agency (EPA) and the Texas Pollutant Discharge Elimination System (TPDES) permit issued by the Texas Commission on Environmental Quality (TCEQ).

The goals of the Storm Water Management Program (SWMP) are to:

- 1. Reduce the discharge of pollutants to the maximum extent practicable.
- 2. Protect water quality.
- 3. Satisfy the appropriate water quality requirements of the federal Clean Water Act.

The Division develops the City's Storm Water Management Plan (SWMP) that is adopted by Council and approved by TCEQ. Along with the Division's role in protecting the quality of our water, the Storm Water Management Division is responsible for the implementation and management of the SWMP's program components for compliance with all state and federal laws to avoid fines and penalties. This includes education outreach, illicit discharge detection, inspections for construction site run-off and illicit discharges, spill response, and city facility good housekeeping The Division enforces the City's storm water ordinance which prohibits illicit discharges entering into the City's storm drainage system. Division staff responds to complaints and reports of illegal dumping, spills, and construction site violations.

The program operates to meet the City's mid-term priorities of Responsible City Government and is continuously evolving as new ideas and methods for reducing or eliminating storm water runoff pollution are incorporated into the program and as federal and state laws are enacted that affect the program.

# **SERVICES AND SERVICE LEVELS**

# **Service: TPDES Implementation**

<u>Texas Pollutant Discharge Elimination System Phase II:</u> The TPDES Phase II program requires the development and implementation of a comprehensive Storm Water Management Program (SWMP).

The program concentrates on six areas that are essential to achieving the program goals.

- 1. Public Education and Outreach
- 2. Public Involvement and Participation
- 3. Illicit Discharge Detection and Elimination
- 4. Construction Site Storm Water Runoff Control
- 5. Post-construction Storm Water Management in New Development and Re-development
- 6. Pollution Prevention and Good Housekeeping for Municipal Operations

The first TPDES permit was formally adopted by the TCEQ in August 2007 and allowed permitees five years to fully develop programs in their SWMP. Annual reports are submitted to TCEQ each year to track the development process. The next permit term begins August 2012 and requires full implementation of the SWMP's six minimum control measures. The EPA through the TCEQ will be adopting revised rules for the next 5 year permit term which will include significant changes to our plan and increased cost. The TCEQ general permit is expected to be approved by the EPA in late 2012. We will then have 6 months to revise our plan and begin implementation. The impact of the upcoming changes to the City will not be fully vetted until the EPA approves the TCEQ general permit.

<u>Environmental Assistance</u>: The Storm Water Program works with various City Departments as well as with City Council, outside regulatory agencies and environmental groups. This is to ensure that the TPDES Permit mandates are met in a timely and efficient manner. The Storm Water Division provides expertise on environmental issues within the City and responds to the City's environmental needs. This assistance may take many forms, including but not limited to: responding to spills and water quality calls.

<u>Upper Oyster Creek TMDL Stakeholder Coordination:</u> Staff works with the TCEQ and the Houston-Galveston Area Council (H-GAC) to coordinate stakeholders and provide feedback during the Upper Oyster Creek TMDL Implementation Plan process.

Program: Stormwater	
Service (Activity)	Service Level Expectation
TPDES Implementation	Implement TPDES Phase II as scheduled

# **SURFACE WATER - 5301**

#### PROGRAM SUMMARY

The Surface Water Division is responsible for all planning and implementation of the City's required reduction in ground water use. The major component is our partial conversion to surface water as our water source. The Surface Water Fund accounts for all operating and capital improvement activities related to the City's required conversion to surface water, which is funded through a groundwater pumpage fee per 1,000 gallons of water produced. There are a total of 17 entities including MUDs, HOAs and private businesses that have joined our Groundwater Reduction Plan (GRP.) Entities outside the City limits pay an out-of-City service charge over the monthly fees; premiums from New Territory and Greatwood are credited to a debt reduction fund based on Strategic Partnership Agreements (SPAs). The division has its own financial Enterprise fund that must be well managed.

The program operates to meet the City's mid-term priorities of Responsible City Government.

# **SERVICES AND SERVICE LEVELS**

# Service: Implement Groundwater Reduction Plan (GRP)

The City will be in compliance with the Fort Bend Subsidence District Regulatory Plan by meeting the required 30% reduction in groundwater usage yearly beginning in 2013.

Groundwater Reduction Plan (GRP) Implementation: Oversee the surface water conversion process via implementation of the Groundwater Reduction Plan. Provide implementation project management, water supply contract management, data analysis, conduct studies and evaluations, and coordination of GRP participants in meeting Fort Bend Subsidence District regulatory requirements, including proper filings and notifications. Also creating and filing all regulatory documentation related to the implementation of the GRP/surface water conversion process. Tracking and reporting early and over conversion to the FBSD.

Manage the Waterwise program via the contract with the Fort Bend Subsidence District for City participation in the Waterwise program. Coordinate communications and regulatory efforts between the 17 GRP participating entities. Manage meter data collection and support Treasury in invoicing GRP Participants for Pumpage Fees.

Coordinating and managing studies, design and planning efforts related to implementing the work outlined in the GRP. Overseeing studies, identifying and pursuing additional non-potable project opportunities. Manage records of water use and credits generated under the GRP. Providing policy-makers with any documentation needed during this process.

<u>Financial Management:</u> Manage the short and long term goals of the GRP and insure funding is adequate to sustain the Surface Water Enterprise Fund as a self-sustaining fund. Track and coordinate all expenses through joint efforts with the Budget office.

<u>Regulatory Filing:</u> Coordinate the creation and filing of select regulatory and mandated documents, including, but not limited to the TWDB water audit, and the Water Conservation Plan/Drought Contingency Plan.

# **Service: Water Supply Management**

Maintain water rights under contract sufficient to meet long term water system capacity requirements.

<u>Surface Water Supply Contract Management:</u> Oversee implementation and management of surface water supply contracts between the City and various entities, including those we receive surface water from (BRA, GCWA, etc.), and those we provide surface water to (FCCA, Telfair/LID 17, The Orchard, etc.). Manage all relevant metering data and reporting functions. Manage and determine daily releases from the BRA reservoir system are coordinated with water demands.

Intergovernmental Coordination: Coordinating and managing all aspects of our surface water conversion process and general utility planning efforts with external and internal entities, fostering open communication between the City and regional water groups and entities, and providing legislative analysis of state and federal changes in law impacting the Water Utilities Department. Provide support for, and foster communications between, the Water Utilities Department, outside organizations, and other City Departments on shared water conservation opportunities and projects. We are also the liaison with local and regional organizations and attend local and regional water meetings and foster communications with groups including but not limited to, the FBSD, LID 17, the NFBWA, Region H WPG, Oyster Creek TMDL stakeholders, etc.

Program: Surface Water	
Service (Activity)	Service Level Expectation
Implement GRP	100% compliance with the Fort Bend Subsidence District Regulatory Plan, by meeting our 30% groundwater reduction requirement yearly.
Water Supply Management	Maintain water rights under contract sufficient to meet long term water system capacity requirements